Default Variables Set by PBS

Category: PBS on Columbia

DRAFT

This article is being reviewed for completeness and technical accuracy.

You can use the "env" command--either in a PBS script or from the command line of an interactive PBS session--to find out what environment variables are set within a PBS job. In addition to the PBS_xxxx variables, the following ones are useful to know.

- NCPUS defaults to number of CPUs that you requested.
- OMP_NUM_THREADS defaults to 1 unless you explicitly set it to a different number.

  If your PBS job runs an OpenMP or MPI/OpenMP application, this variable sets the number of threads in the parallel region.
- OMP_DYNAMIC defaults to *false*.

  If your PBS job runs an OpenMP application, this disables dynamic adjustment of the number of threads available for execution of parallel regions.
- MPI_DSM_DISTRIBUTE defaults to *true*.

  If your PBS job runs an MPI application, this ensures that each MPI process gets a unique CPU and physical memory on the node with which that CPU ist is associated.
- FORT_BUFFERED defaults to 1.

  Setting this variable to 1 enables records to be accumulated in the buffer and flushed to disk later.

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http://www.nas.nasa.gov/hecc/support/kb/entry/195/?ajax=1